

TABLE E-1 Indications for Nonenhanced CT Imaging in the Patient Cohort

Pathological Condition	No. of Patients (N = 99)
Kidney stone	26
Hematuria	15
Kidney failure	11
Tumor	
Urothelial	8
Kidney	5
Other	3
Intra-abdominal abscess	6
Polycystic kidney syndrome with lumbar pain	5
Vascular exploration before kidney donation	4
Kidney graft survey	4
Intra-abdominal hematoma	3
Other (pyelonephritis, abdominal pain, anemia, crural hernia)	9

TABLE E-2 Continuous Variables in the Patient Cohort

	Mean and Std. Dev.	Median
Age (yr)	53.93 ± 16.35	55
Body-mass index ( $kg/m^2$ )	32.36 ± 12.18	30.7
Alcohol consumption* (glass-yr)	27.00 ± 69.67	0
Tobacco consumption† (pack-yr)	14.44 ± 29.28	0
Caffeine consumption‡ (cup- yr)	60.23 ± 67.55	46
Physical activity (hr/wk)	8.80 ± 13.82	4

\*Number of glasses per day × years of consumption. †Number of packs per day × years of consumption.

‡Number of coffee (or tea or cola) cups (or glasses) per day × years of consumption.

TABLE E-3 Categorical Variables in the Patient Cohort

Condition	No. of Patients
Female	41
Recent weight loss (>5%)	37
Diabetes	10
Hypothyroidism	8
Menopause (in women)	22
Chronic cardiac failure	8
History of cancer	18
Chronic respiratory failure	2
Hemodialysis for chronic renal failure	9
Hip joint disease	0
Neurological limb deficit	2
History of falls	10
History of osteoporotic fracture	9
Chronic steroid administration	9
Need for walking aid (such as a cane)	7
Sporting activity	27
>1 mo confinement to bed	10
Difficulty with daily activities	13
Maximal walking capability <1 km	81
Six-meter walk (0/1/2/3/4)	13/20/5/10/51
Repeated chair stands (0/1/2/3/4)	14/5/6/18/56
Trendelenburg test, right side (0/1/2/unable)	5/3/81/10
Trendelenburg test, left side (0/1/2/unable)	4/4/80/11

TABLE E-4 Variability in Muscle Fat Content in the Normal Subject Cohort

Muscle	Mean and Std. Dev. (%)	Median (%)	Minimum and Maximum (%)	Coefficient of Variation
Gluteus maximus	8 ± 6	6	1-19	0.81
Gluteus medius	3 ± 1	2	0-5	0.58
Gluteus minimus	5 ± 2	5	1-8	0.43
Tensor fasciae latae	4 ± 3	4	0-10	0.61
Quadratus femoris	6 ± 4	5	2-13	0.63
Sartorius	2 ± 1	2	1-3	0.40
Iliopsoas	1 ± 1	1	0-3	0.43

TABLE E-5 Variability in Mean Muscle Fat Content in the Patient Cohort Stratified by Age and Sex\*

Muscle	Age in Yr						Men (N = 58)	Women (N = 41)
	23 to 29 (N = 9)	30 to 39 (N = 17)	40 to 49 (N = 9)	50 to 59 (N = 26)	60 to 69 (N = 20)	70 to 94 (N = 18)		
Gluteus maximus	4 ± 5	5 ± 4	5 ± 5	11 ± 6	15 ± 8	15 ± 9	11 ± 13	11 ± 8
Gluteus medius	2 ± 2	2 ± 4	2 ± 2	5 ± 3	6 ± 4	8 ± 6	6 ± 12	5 ± 5
Gluteus minimus	3 ± 2	3 ± 4	3 ± 2	6 ± 3	7 ± 4	12 ± 9	7 ± 11	8 ± 7
Tensor fasciae latae	3 ± 6	3 ± 3	3 ± 5	7 ± 7	13 ± 18	7 ± 5	8 ± 15	7 ± 6
Quadratus femoris	5 ± 4	5 ± 5	4 ± 3	6 ± 4	10 ± 5	8 ± 5	8 ± 10	7 ± 5
Sartorius	1 ± 2	1 ± 1	1 ± 2	2 ± 2	3 ± 3	2 ± 2	3 ± 11	3 ± 2
Iliopsoas	1 ± 1	1 ± 2	1 ± 1	2 ± 2	3 ± 2	2 ± 2	3 ± 10	2 ± 2

\*Values (in percent) are given as the mean and the standard deviation.

Table E-6

## HEALTH QUESTIONNAIRE

### General information

Date of Birth:      Age :      

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      | 1 | 9 | 

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Sex :      M       F

Right handed  Left handed

Weight:      

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 kg      Size : cm      

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      BMI :      

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Profession : ..... CT scan indication : .....

- ① no
- ⑧ other
- ⑨ no data

### General medical history

Weight loss during the last year       ① <5 %      ② 5 à 10%      ③ >10% en 1 an

Orthopaedic :      Osteoporotic fracture        
                           Hip joint disease       ① yes      ② *inflammatory disease*

Myopathy :       ① yes

Endocrinology :      Diabetes       ① *type 1*      ② *type 2*

Thyroïd       ① hypo      ② hyper

Menopause       ① yes      ② if hormonal treatment

Hypogonadism       ① yes

Chronic disease:      Heart failure       ① yes  
                           Respiratory failure       ① yes  
                           Hemodialysis       ① yes  
                           HIV       ① yes ② if antiretroviral treatment

Neurologic deficit in the last 6-month       ① *right leg*      ② *left leg*      ③ *bilatéral*

Cancer history       ① yes kind..... date.....  
                           treatment.....

Fall(s)       ① <1/month      ② <1/week      ③ >1/week

- ① no
- ② yes
- ③ no data

### Hip medical history

Inflammatory hip joint disease       R - L  
                           Hip osteoarthritis       R - L

Hip joint replacement       R - L      ② *after 50y*      ③ *post traumatic*  
                           Maternal history of hip fracture before 50y

Hip tendinopathy / bursitis

 R – L**Habitus**

Alcohol  glass/day .....      Age of beginning... stop ...  glass/year  
 Tobacco  pack/day.....      Age of beginning... stop ...  pack/year  
 Caffeine  cups/day.....      Age of beginning... stop ...  cup/year  
 (coffee, tea, coke)

- ① no
- ② yes
- ③ no data

**Drug treatments**

Steroids  name..... dose..... beginning..... stop.....  
 NSAII  name..... dose..... beginning..... stop.....  
 Insulin  name..... dose..... beginning..... stop.....

- ① no
- ② yes
- ③ no data

Others .....  
.....

**Activity**

Physical activity at work  ① sedentary      ② medium physical activity  
     ③ weak physical activity      ④ strong physical activity

Sport practice  ① rare      ② 1/week      ③ >1/week  
 Total physical activity  hours /week

History of confinement  
to bed >1month  ① no      ② yes

Need help for walking  ① no      ② yes

Maximal walking distance  ① < 1 km (15 min)      ② > 1 km (15 min)

Difficulties in daily acts:  
 Putting shoes on  ① no      ② yes  
 Standing up without using hands   
 Climbing stairs